AD Instrumentation

	2020-10				2020-11				2020-12					2021-1				2021-2				2021-3			
	41	42	43	44	45	46	47	48	49	50	51	52	53	1	2	3	4	5	6	7	8	9	10	11	12
AD Instrumentation	AD Instrumentation																								
Implement Mooc 720 Hz Upgrade	New																								
adinstbpm																									
Booster operational test of one crate (...)	New																								
Booster BPM ACNET Interface	Work in progress																								
ACNET device BPM Numbers (0x0017)	Work in progress																								
ACNET device BPM Offsets (0x0016)	Resolved																								
ACNET device BPM Digitizer (...)	Resolved																								
ACNET device BPM Turn-by-Turn (...)	Work in progress																								
ACNET device BPM Single Turn (...)	Resolved																								
ACNET device BPM Single Turn (...)	Resolved																								
ACNET device BPM Turn-by-Turn (...)	Resolved																								
ACNET device BPM Average Position (...)	Work in progress																								
ACNET device BPM Orbit Group (...)	Work in progress																								
ACNET device BPM Closed Orbit (...)	Resolved																								
ACNET device BPM Orbit Correction (...)	Work in progress																								
bpmd error facility	Work in progress																								
Verify DAQ operation with at least (...)	Work in progress																								
Support for flash-turn and flash-orbit (...)	Work in progress																								
Support for DMA transfers from (...)	New																								
Locking mechanism for shared memory (...)	Resolved																								
Create ACNET devices for B38 and (...)	Resolved																								
Test B38 and B40	Work in progress																								
Driver for Booster BPM transition (...)	Resolved																								
Support flagging that data could (...)	Resolved																								
No beam threshold	Resolved																								
Implement Booster BPM scaling	Resolved																								
Configure BPMs for test stand at (...)	Work in progress																								

Why do soft reboots sometime hang?	**New**
Implement polynomial scaling	**Resolved**
bpmcli command to reload bpmd.conf	**Assigned**
Refactor to use getopt	**Resolved**
Support BPM lists in dump commands	**Resolved**
Refactor bpmcli 'abort' command (...)	**Resolved**
Refactor bpmcli 'arm' command to (...)	**Resolved**
Refactor bpmcli 'dump_flash_history' (...)	**New**
Refactor bpmcli 'help' command (...)	**New**
Refactor bpmcli 'readout' command (...)	**Resolved**
Refactor bpmcli 'show' command (...)	**Resolved**
Refactor bpmcli 'shutdown' command (...)	**Resolved**
bpmcli commands for enabling/disabling (...)	**Work in progress**
Improvements to bpmcli	**New**
Booster BPM State Machine	**Work in progress**
Support for GigE ADCs	**New**
x86 support for Technobox XMC GigE (...)	**Work in progress**
IOTA BPM deployment	**New**
IOTA ACNET Interface	**New**
Crate status and control device	**Work in progress**
Support for 4-channel 2-dimensional (...)	**Resolved**
Startup despite missing timing (...)	**Resolved**
Adapter for NML timing module	**Work in progress**
Adapter for IOTA DAQ module	**Resolved**
IOTA State Machine	**Resolved**
Functional specification document	**Assigned**
The number of samples argument (...)	**New**
Control message queue is not destroyed (...)	**Resolved**
Enter BPMs into bpmd.conf	**Resolved**
Create separate "stable" branches (...)	**Resolved**
IOTA BPM TBT Array Device	**Assigned**
ACNET device for Arming IOTA BPMs	**Assigned**
BPM-level delay configuration	**New**
Separate IOTA ACNET code from BoosterBPMACNET (...)	**Work in progress**

Orbit structure device for IOTA (...)	**Work in progress**
Support multiple sets of coefficients (...)	**New**
TCLK-driven arm and TBT readout (...)	**New**
Request ethernet connection for (...)	**Resolved**
Request ACNET node assignment	**Resolved**
BPM Diagnostics Application	**New**
ACNET interface for adjusting TSG and (...)	**Assigned**
Deploy IOTA BPM hardware	**New**
Booster BPM deployment	**New**
Gather crate and CPU MAC addresses (...)	**Work in progress**
Request ethernet connection for (...)	**Assigned**
Request ethernet connection for (...)	**Assigned**
Request ethernet connection for (...)	**Assigned**
Request ethernet connection for (...)	**Assigned**
Request ACNET node assignment for (...)	**Work in progress**
Request ACNET node assignment for (...)	**Work in progress**
Request ACNET node assignment for (...)	**Work in progress**
Request ACNET node assignment for (...)	**Work in progress**
bpmd.conf for BBPL15	**New**
bpmd.config for BBPL15	**New**
Change node name for all BBPM15 (...)	**Resolved**
Change node name for all BBPM06 (...)	**Resolved**
Change node name for all BBPM21 (...)	**Resolved**
Change node name for all BBPM12 (...)	**Resolved**
Change node name for all BBPM18 (...)	**Resolved**
Change node name for all BBPM24 (...)	**Resolved**
Snapshot plot support for Booster BPMs	**Assigned**
PIP2IT BPM Project	**New**
Refactor to store positions inside (...)	**New**
Position calculation thread	**New**
IPC to broadcast events from bpmd	**New**
Support GigE readout	**New**
Python API for accessing BPM data	**New**
Merge iota_stable, booster_stable	**New**

Support for I&Q, phase space data (...)	**New**
Support displaying bpmd broadcasts	**New**
Support displaying data in gnuplot	**New**
RMS analysis process	**New**
Interactive bpmcli	**New**
Support for Analysis Processes	**New**
Support rack-mount server architecture	**New**
Review request [commit:9d6fb8c32be2b760ee703095242908551c178991: (...)	
Missing Mutual Exclusion with linked (...)	**New**
TRACE buffer levels need to be in enumeration	**New**
drvgen	
Remove redundant or unnecessarily long (...)	**New**
TSI-148 bridge does not support a master (...)	**Assigned**
Support for VME A24	**New**
A24 Registers Support	**Assigned**
A24 Data Regions Support	**Assigned**
Constants generated for bitfields and (...)	**Resolved**
runtime_error in generated getDeviceInSlot() (...)	**Resolved**
Kernel-level xxxmod_device_get() routine (...)	**Work in progress**
Make the VME A16 scanning increment (...)	**Work in progress**
Image Tool	
Live Images not working	**Resolved**
Remember fit selection between acquisition (...)	**Resolved**
Error notifications on multi-screen (...)	**Resolved**
Picture Stops Updating	**Resolved**
Incorrect amplitude scaling on ROI	**Accepted**
Saturated Pixels incorrect on Background (...)	**New**
Java Security Blocks	**New**
Input is not in the .gz format	**Resolved**
Camera Ordering	**New**
Error on One-Shot Acquisition	**Accepted**
Defalut camera?	**New**
Device List in Meta	**New**
Incorrect Horz Histogram window on ROI	**New**

Frequent Errors in Live Acquisition	New
Camera-Switch Instability	New
inst-bpm	
Refactor pointer usage to smart pointers	Accepted
Booster frequency curve	Accepted
State Machine subsystem	Accepted
Implement timer-triggered commands	New
Instrument bpmd control commands (...)	New
BPMDRO does not release on exit	New
adc250x12xs VXS interface	New
StateMachine refactor	New
Design ACNET interface for command (...)	New
Use the GoF State pattern in StateMachine (...)	New
Move the Command and CommandList (...)	New
Rename the IDLE command the EXIT (...)	New
Turn off interrupts when module is removed.	New
Execute CommandLists	Assigned
Find a replacement for the CT VX405/04x (...)	New
Down Converter Test	New
bpmcli command for loading the (...)	New
Test command list for reading out (...)	New
Make Synoptic pages for displaying (...)	Feedback
Timing board stops generating TCLK (...)	Assigned
btimemod_device_release does not release (...)	Resolved
State Machine subsystem test	New
PXIE BPM Deployment	New
PXIE BPM Test Node	New
Network connection and kerberos (...)	Assigned
Boot flash for PXIE BPM test (...)	New
Instrumentation Drivers	Instrumentation Drivers
DCCT ADC Driver	Assigned
Driver for VFRT-VUCD TSG	New
Driver for CMTF Interlocks ADC	New
ACNET interface for CMTFInterlocksADC	Assigned

80MHz board driver could be a little (...)	**Resolved**
slowness of init of 80MHz driver ??	**New**
Raw data device does not support channels	**Accepted**
Develop a Prototype VME Driver Writer	**New**
80MHz Digitizer requires repeating commands (...)	**Resolved**
80MHz digitizer driver should sanity (...)	**Resolved**
57 -97 errors on raw/triggered data (...)	**New**
Add offset to add into waveform points	**New**
Driver for 12-channel NML Timing Board	**New**
Setup a test crate	**New**
Submit network connection (...)	**New**
Create drvgen register map	**New**
Commission nmltrg	**Assigned**
Verify operating of ACNET devices (...)	**Accepted**
Firmware loading tool for Linux	**Assigned**
Driver for IOTA BPM Timing Module	**New**
drvgen specification for NML timing (...)	**Work in progress**
Device driver for IOTA DAQ module	**Assigned**
drvgen specification for IOTABPM250x8	**Resolved**
Implement DMA readouts for Raw (...)	**Work in progress**
Commission IOTATG	**New**
Request ethernet connection for (...)	**Work in progress**
Request ACNET node assignment for (...)	**Assigned**
Create startup script for IOTATG	**Assigned**
Configure startup parameters for (...)	**Assigned**
Create ACNET devices for IOTATG	**Assigned**
Verify ACNET devices and operation (...)	**Assigned**
Channel level delays for IOTA BPM DAQ	**Work in progress**
Linux on MVME8100	
Need extra mini db-9 cables, null modem (...)	**New**
Linux Kernel booting on the MVME8100	**New**
Setup build area	**Assigned**
Network connection for booster (...)	**Assigned**
Main Injector BPM	

Upgrade all BPM nodes to ACNET/MOOC (...)	**New**
Upgrade to VxWORKS 6.7	**New**
MI/RR IPM	
Single turn plot does not work when (...)	**New**
Necessary LabView parameters are no (...)	**Resolved**
State machine devices for Booster IPMs	**Resolved**
Plotting Charge, Sigma and Turns does (...)	**New**
Single turn plot not showing current (...)	**Resolved**
Excessive delay in first plot, capturing (...)	**New**
rbpm	
Setup test node	**Assigned**
Add test node to R143	**Assigned**
Verify test node	**Assigned**
Commission Muon Houses S60, F1 and F23	**New**
Network connections for new muon (...)	**New**
Configure startup scripts for ubpm6s, (...)	**Assigned**
ACNET devices for ubpm23 BPMs	**Assigned**
Support 53MHz, 53MHz stacked and (...)	**Assigned**
Recycler BPM	
New P1 Line BPMs	**Accepted**
Upgrade to MOOC v4.1	**New**
Build gbpm, rrbpm and rrtb code (...)	**Assigned**
Deploy MOOC 4.1 to test stand and (...)	**New**
Deploy MOOC 4.1 to a single rbpm (...)	**New**
Deploy to remaining rbpm houses	**New**
Missing first injection and other odd (...)	**Assigned**
Support Notes	
Re-Write "RFIES Variants - Detailed" (...)	**New**
Timing Library	
Support for Charlie's evttrig library	**Accepted**
ubpm	
Establish Test Stand	**New**
Assemble crate	**New**
Network connection	**New**

Request ACNET node name	**New**
Create git repository	**New**
Establish Targets file, startup (...)	**New**
Rename RRXxx classes to MuonXxx	**New**
Create ACNET devices for test node	**New**
Add Muon Campus Devel 'area' to (...)	**New**
Modify MuonStateMachine to respond (...)	**New**
VME BPM	
Add nodes to save list	**New**
Move scaling into the frontend	**New**
VP94 and HP103 show identical data when (...)	**New**
Release 201603A	**New**
Upgrade ClassACNet/Mooc	**Assigned**
SY BPMs won't boot	**Resolved**
F4 node won't boot	**New**
Replace SBC at F4	**Resolved**
BBM Interface	**Assigned**
Attenuation tables won't initialize (...)	**Resolved**
Improvements for auto-tune operation	**New**
Flat positions being reported intermittently	**New**
Put together a test stand	**New**
Establish alarms for SBPMxx nodes	**New**
ACNET support for beam threshold	**New**
Error state during spill	**New**
Investigate reading back attenuator (...)	**New**
Improve error handling of CAN bus (...)	**New**
VME Intensity Monitor	**VME Intensity Monitor**
BBB devices are returning stale data	**Feedback**
BBB standard deviation device	**New**
2015 Shutdown	**New 95%**
Implement MDAT Receiver	**Assigned**
Request remote reboot devices	**Work in progress**
Configure MDAT frames	**Assigned**
ANUB Startup	**New 96%**

Normalized BEL devices	**Assigned**
Support beam before extraction (...)	**New**
Deploy New MI Tororid Nodes	**Resolved**
Refactor to use the PMCUCDTimingSystem (...)	**Assigned**
Simplify Script Set Register Functions	**Work in progress**
ACNET settings for ADC parameters	**Resolved**
Reset sum on disarm event + delay	**Assigned**
Acnet Device Set Toroid ADC Registers (...)	**Work in progress**
Confirm ADC Present and Correct	**Work in progress**
Injection and Extraction Cycle Devices	**Assigned**
Beam Energy Loss Devices	**Assigned**
Cycle devices for anub	**Accepted**
Use Trace for logging & error reporting	**Assigned**
April Release - 201604A	**New**
Refactor to useAD/Control's concurrency (...)	**New**
Move ADC drivers to adinsthw	**New**
TSG Support	**Assigned**
Support Alexei's changes to the (...)	**Assigned**
Remove Conditional Compilation (...)	**Work in progress**
Turn of tracing for ACNET tasks	**New**
Refactor TRACE0 calls with the (...)	**New**
Support new digitizer gate mode (...)	**Resolved**
201602A Replace Latch with ATR	**Work in progress**
201602A Document ATR	**Work in progress**
Create new sum devices	**Assigned**
Rename *.h Files to *.hpp	**Work in progress**
Scale Factor EVENT OVERLAP Error Message (...)	**New**
Transition operational Recycler DCCT (...)	**Assigned**
Rename ANUB	**Assigned**
Array Data Timeout Request	**New**
MI/RR DCCT Configuration Update	**Assigned**
Transfer MI DCCT Acnet devices (...)	**New**
Cleanup DcctDrv & Calls to DcctDrv	**Work in progress**
New DCCT V2.1 Firmware Driver	**New**

MDAT requires Baseline Filter	New
Pxint Firmware Update to ABB0E	Work in progress
Pxie Scrapers Clean Up	Work in progress
DCCT: Transfer Recycler Devices from (...)	Assigned
Support different DcctDrv firmware running (...)	Assigned
Update Pxie Gate Width Calibration Mode	Work in progress
Replicate PXINT on NBEAM Request	New
ACNET device support for new MPS features (...)	Assigned
Support tracking the chopper's pulse (...)	Assigned
Configure second ring pickup for PXIE	Assigned
Fix scaling for ring pick MPS thresholds	Assigned
ADC configuration commands for PXIE (...)	Assigned
BBM for R:TOR703	Assigned
Configure pulse width tracking for PXIE (...)	Assigned
Write integrated pulse readings to file	Assigned
New scale factors for PXIE Ring Pickups (...)	Work in progress
Support for Rich's MPS transmission (...)	Assigned
Support for PXIE digitizer firmware (...)	Assigned
Request for I:13SUM1	New
Support plotting MDAT transmitter frames (...)	New
Create devices for Ring Pickup study (...)	Work in progress
Configure R:TOR703 for g-2 operation	Assigned
Configure a cycle device for R:TOR703 (...)	Resolved
Build support into Cycle Devices that (...)	Assigned
Commission new toroid nodes at NML	New
Install hardware for NMLTR2	Work in progress
Install hardware for NMLTR3	Work in progress
Create ACNET devices for new toroids	Work in progress
Verify new devices with a test (...)	New
Verify BBM interface with Bill (...)	New
Commission new scrapers for PXIE	Resolved
ACNET devices for new scrapers at PIP2IT	Assigned
Comission M40TOR front end	New
Configure M40TOR CPU board	Resolved

Request ACNET node ID assignment (...)	**Resolved**
Configure startup script	**Assigned**
Configure MDAT transmitter	**New**
Test & Verify	**New**
Sum device for muon campus toroid (R:TOR703)	**New**
More summation devices requested	**New**
Commission F16TOR	**Assigned**
Install and configure hardware (...)	**New**
E:NUMIPWR	**Assigned**